

12

EPA Region 5 Records Ctr.



225346

ATTACHMENT II

TLD DATA

## EXPOSURE PERIOD

31 DAYS

## DOSIMETER READINGS

(MREM/EXPOSURE PERIOD)

	TLD NUMBER	TLD #1	TLD #2	TLD #3	TLD #4	TLD #5	MEAN
161 E. GRAND	.....	.....	.....	.....	.....	.....	.....
	9021	3280	3224	3253	3334	2921	3202.4
EXPOSED	9022	182	245	208	226	190	210.2
(7/2-8/2, 1993)	9023	33	26	32	39	31	32.2
	9024	28	36	35	42	40	36.2
	9025	35	36	44	42	39	39.2
	9026	199	183	251	194	185	202.4
	9027	432	548	436	442	535	478.6
	9028	49	51	56	46	47	49.8
	9029	46	43	35	41	35	40.0
SITE BACKGROUND	9031	17	14	14	12	16	14.6
	9032	15	20	16	13	15	15.8
	9033	33	34	29	40	35	34.2

## LINDSAY LIGHT COMPANY RELATED DOSE READINGS

		NET DOSE PER HOUR	NET DOSE PER 40 HOUR WEEK	NET DOSE PER 2000 HOUR WORK YEAR	CANCER INCIDENCE RISK PER 2000 HOUR WORK YEAR	CANCER INCIDENCE RISK PER 50 WORK YEARS
	TLD NUMBER	(MREM/HR)	MREM/WK)	(MREM/YR)		
161 E. GRAND	.....	.....	.....	.....	.....	.....
	9021	4.28929	171.6	8578.6	5.3E-03	2.7E-01
EXPOSED	9022	0.26751	10.7	535.0	3.3E-04	1.7E-02
(7/2-8/2, 1993)	9023	0.02827	1.1	56.5	3.5E-05	1.8E-03
	9024	0.03364	1.3	67.3	4.2E-05	2.1E-03
	9025	0.03768	1.5	75.4	4.7E-05	2.3E-03
	9026	0.25703	10.3	514.1	3.2E-04	1.6E-02
	9027	0.62827	25.1	1256.5	7.8E-04	3.9E-02
	9028	0.05192	2.1	103.8	6.5E-05	3.2E-03
	9029	0.03875	1.6	77.5	4.8E-05	2.4E-03
SITE BACKGROUND	9031	0.00461	0.2	9.2	5.7E-06	2.9E-04
	9032	0.00622	0.2	12.4	7.8E-06	3.9E-04
	9033	0.03096	1.2	61.9	3.9E-05	1.9E-03

ATTACHMENT V  
ATSDR RECOMMENDATIONS

# ATSDR Record of Activity

UID #: P A C 4

Date: 9/14/93 Time: 8:30 am

Site Name: Lindsey Light City: Chicago Cnty: State: IL

CERCLIS #: Cost Recovery #: 60YL Region: V

Site Status (1) NPL Federal Non-NPL RCRA Non-Site specific  
(2) Emergency Response Remedial Other

## Activities

Incoming Call Public Meeting Health Consult Site Visit  
X Outgoing Call Other Meeting Health Referral Info Provided  
Conference Call Data Review Written Response Training  
Incoming Mail Other

Requestor and Affiliation: (1) Vernita Simon, OSC

Phone: 312 886-3601

Address:

City:

State:

Zip Code:

## Contacts and Affiliation

( ) ( )  
( ) ( )

1-EPA	2-USCG	3-OTHER FED	4-STATE ENV	5-STATE HLT
6-COUNTY HLTH	7-CITY HLTH	8-HOSPITAL	9-LAW ENFORCE	10-FIRE DEPT
11-POISON CTR	12-PRIV CITZ	13-OTHER	14-UNKNOWN	15-DOO
16-DOE	17-NOAA	18-OTHR STATE	19-OTHR COUNTY	20-OTHR CITY
21-INTL	22-CITZ GROUP	23-ELECT. OFF	24-PRIV. CO	25-NEWS MEDIA
26-ARMY	27-NAVY	28-AIR FORCE	29-DEF LOG AGCY	30-WRC
31-ATSDR				

Health Assessment Health Studies Tox Info-profile Worker Hlth  
Petition Assessment Health Surveillnc Tox Info-Nonprofil Admin  
X Emergency Response Disease Registry Subst-Spec Resch Other  
Health Consultation Exposr Registry Health Education

Narrative Summary: As a follow-up to the site visit to Lindsey Light, EPA has supplied the results of the TLD monitoring at several locations around the city of Chicago that may have radiological contamination. The TLD results were supplied as a function of exposure per week (24 hour exposure). To equate this to exposure of individuals who may receive excessive levels of exposure, the following procedure was used. I used 2000 hours per year for a worker (50 weeks per year, 40 hours per week). The current exposure limit is 100 millirem per year or 0.05 mrem per hour. Since there are 168 hours in a week, any TLD with an exposure of 8.4 millirem per week was considered excessive (168 x 0.05). Using this procedure, 4 TLDs in the 161 E. Grand Avenue location were considered excessive. These were TLD numbers 9021, 9022, 9026, and 9027. 9021 and 9022 appear to be in the basement and it is unlikely that excessive exposures could occur. However, 9026 and 9027 appear to be within an office on the second floor. I would recommend that either that office be vacated and sealed or the office be remediated to a level that is considered radiologically safe (<100 millirem per year).

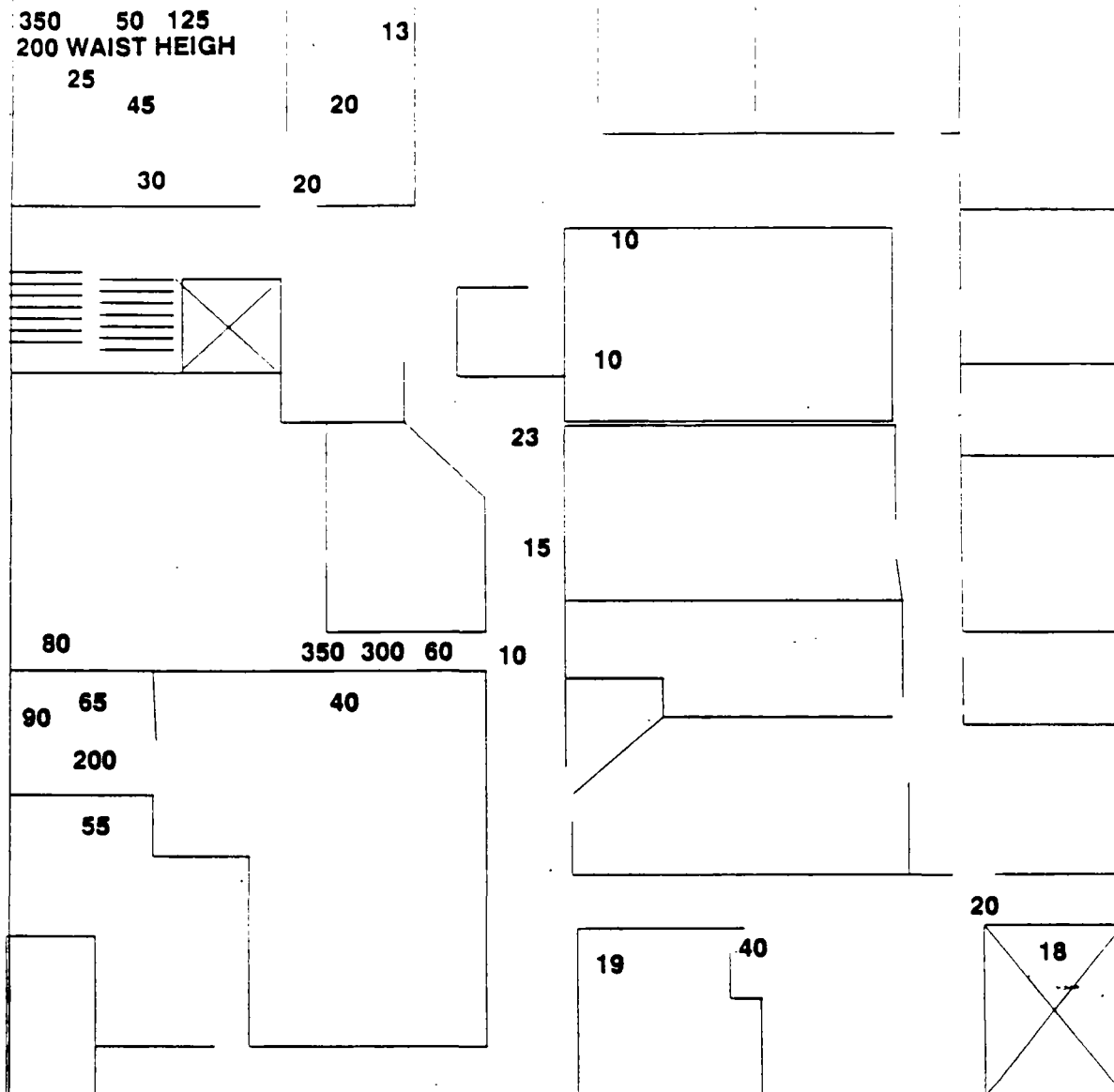
Action Required/Recommendations/Info Provided: None at this time.

Signature: Robert L. Williams for Paul A. Chapp, Ph.D. Date: September 14, 1993

CC:  
Robert L. Williams, Region V (via email)  
RIMB

ATTACHMENT III  
GAMMA SURVEY MAPS  
OF LINDSAY LIGHT BUILDING

# Readings: MicroR/Hr

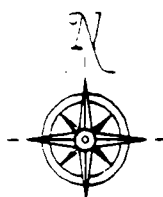


Floor Contact readings (unless indicated differently)

Readings include the correction factor

The instrument reads higher by a factor of 2.

## LEGEND



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Technical Assistance Team

Region V

TITLE 161 E. Grand Ave. 4th Floor (Streeterville)

FIGURE • Figure 4

SITE Lindsay Light Company

TDD# T05-9305-014

CITY Chicago STATE IL

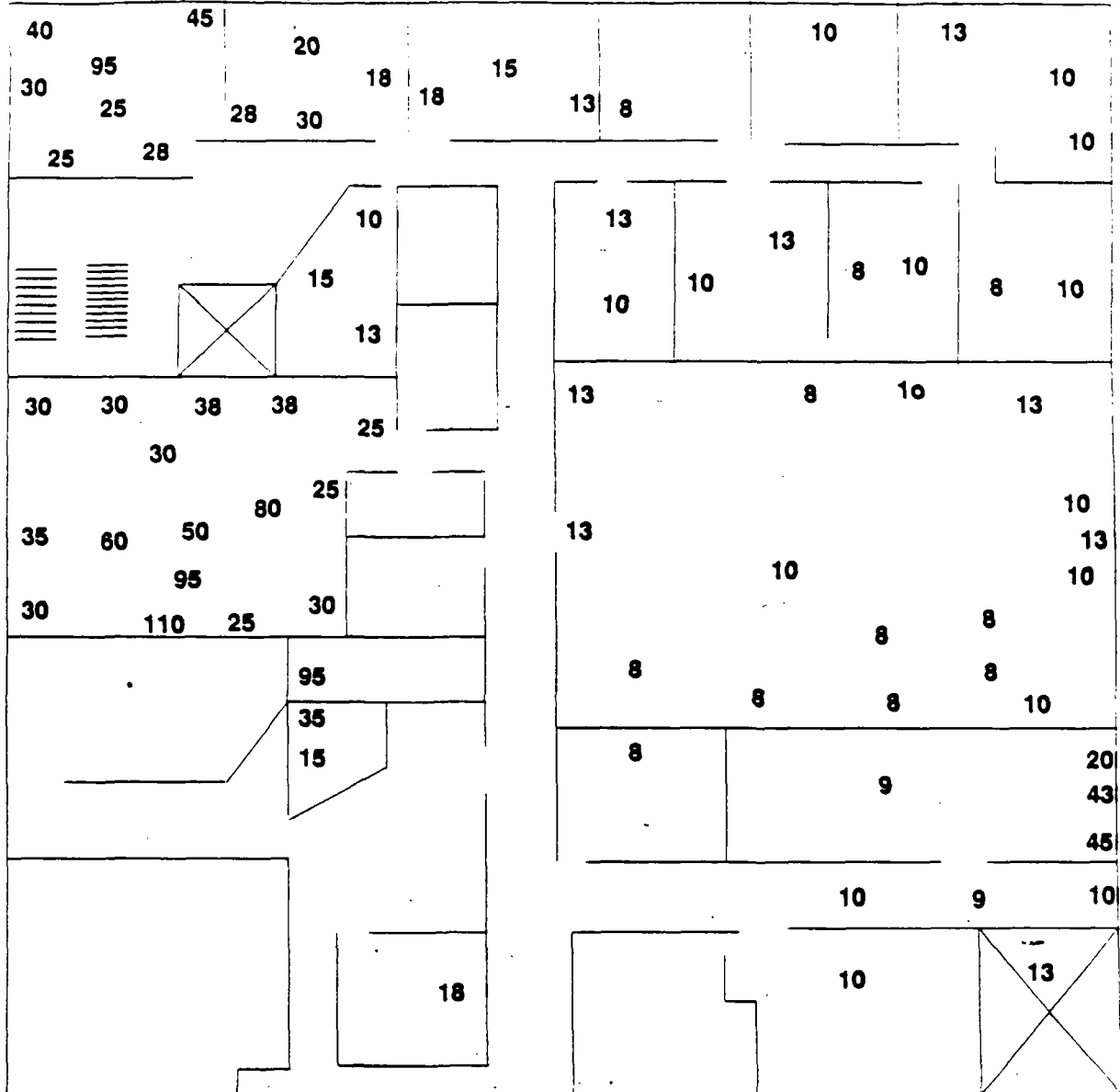
SCALE Not to Scale

SOURCE Instrument: Ludlum Model 19

DATE July 15, 1993

REVISED

# Readings: Micro-R/hr

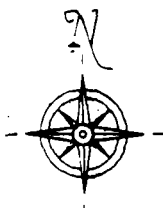


## Floor Contact Readings

Readings include the correction factor

The instrument reads higher by a factor of 2

## LEGEND



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Technical Assistance Team  
Region V

TITLE	161 E. Grand 3rd Floor (Optumus)	FIGURE #	Figure 3
SITE	Lindsay Light Company	TDD#	T05-9305-014
CITY	Chicago	STATE	IL
SOURCE	Instrument: Ludlum Model 19	SCALE	Not to Scale
		DATE	July 16, 1993
		REVISED	



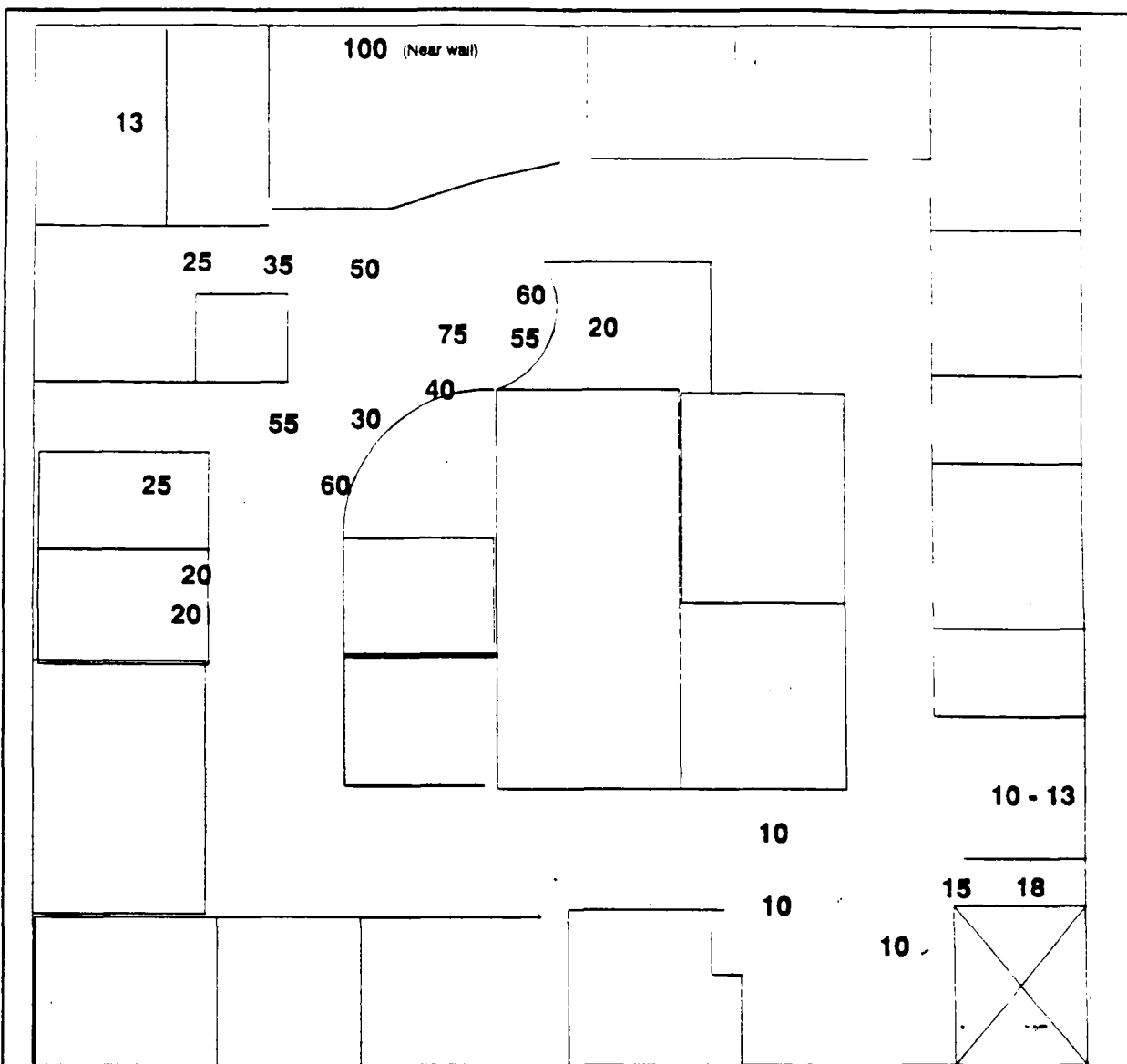
The floor plan consists of numerous interconnected spaces. Key features include:

- Top Left:** A large rectangular area divided into sections with numbers like 23, 70, 65, 300, 240, 250, 100, 150, 30, 35, and 90.
- Top Center:** A section with numbers 40, 80, 38, 140, 10, 13, 15, 10, and 10.
- Top Right:** A vertical strip with numbers 10, 10, 10, 10, and 10.
- Middle Left:** A rectangular room containing a bed icon, with dimensions 75, 35, 10, 30, 30, 40, 18, and 8.
- Middle Center:** A curved wall section with dimensions 55, 60, 70, 113, 35, 10, 30, 15, 18, 15, 13, 10, and 50.
- Middle Right:** A tall rectangular room with a staircase icon and the label '(Stairs)', with dimensions 8, 10, 8, 7, 8, 6, 6, 8, 6, and 8.
- Bottom Left:** A large rectangular area with dimensions 30, 18, 5, 10, and 30.
- Bottom Center:** A horizontal strip with dimensions 25, 10, 10, and 10.
- Bottom Right:** A rectangular area with dimensions 10, 10, and 10, and a small square with an 'X' labeled 'Room'.



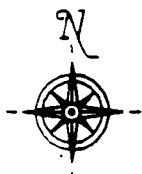
**Technical Assistance Team  
Region V**

TITLE	161 E. Grand Ave. 2nd Floor (Optumus)	FIGURE #	Figure 2
SITE	Lindsay Light Company	TODD	T05-9305-014
CITY	Chicago	STATE	IL
		SCALE	Not to Scale
SOURCE	Instrument: Ludlum Model 19	DATE	July 16, 1993
		REVISED	



Readings include correction factor of 2  
The instrument reads higher by a factor of 2

## LEGEND



Readings: MicroR/Hr

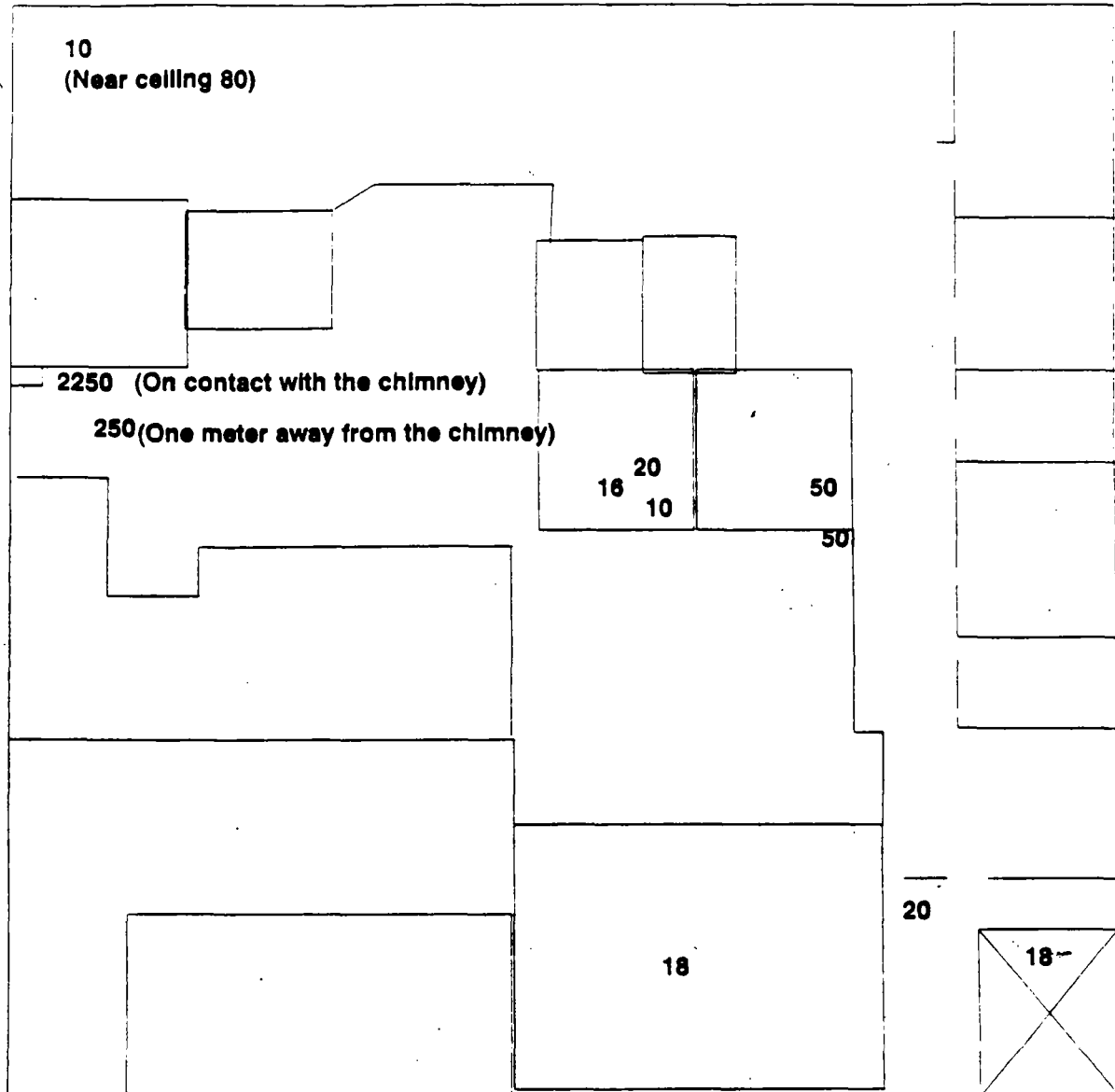


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Region V

111 W Jackson Blvd., Chicago, Illinois 60604

TITLE 161 E. Grand Ave. 1st Floor Readings <b>Optumus</b>		FIGURE # Figure 5
SITE Lindsay Light Co.		SCALE T05-9305-014
CITY Chicago	STATE IL	PAN Not to Scale
SOURCE Instrument: Ludlum Model 19		DATE
		REVISED

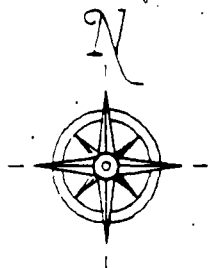
# Readings: Micro-R/hr



## Floor Contact readings (unless indicated differently)

Readings include the correction factor  
The instrument reads higher by a factor of 2

### LEGEND



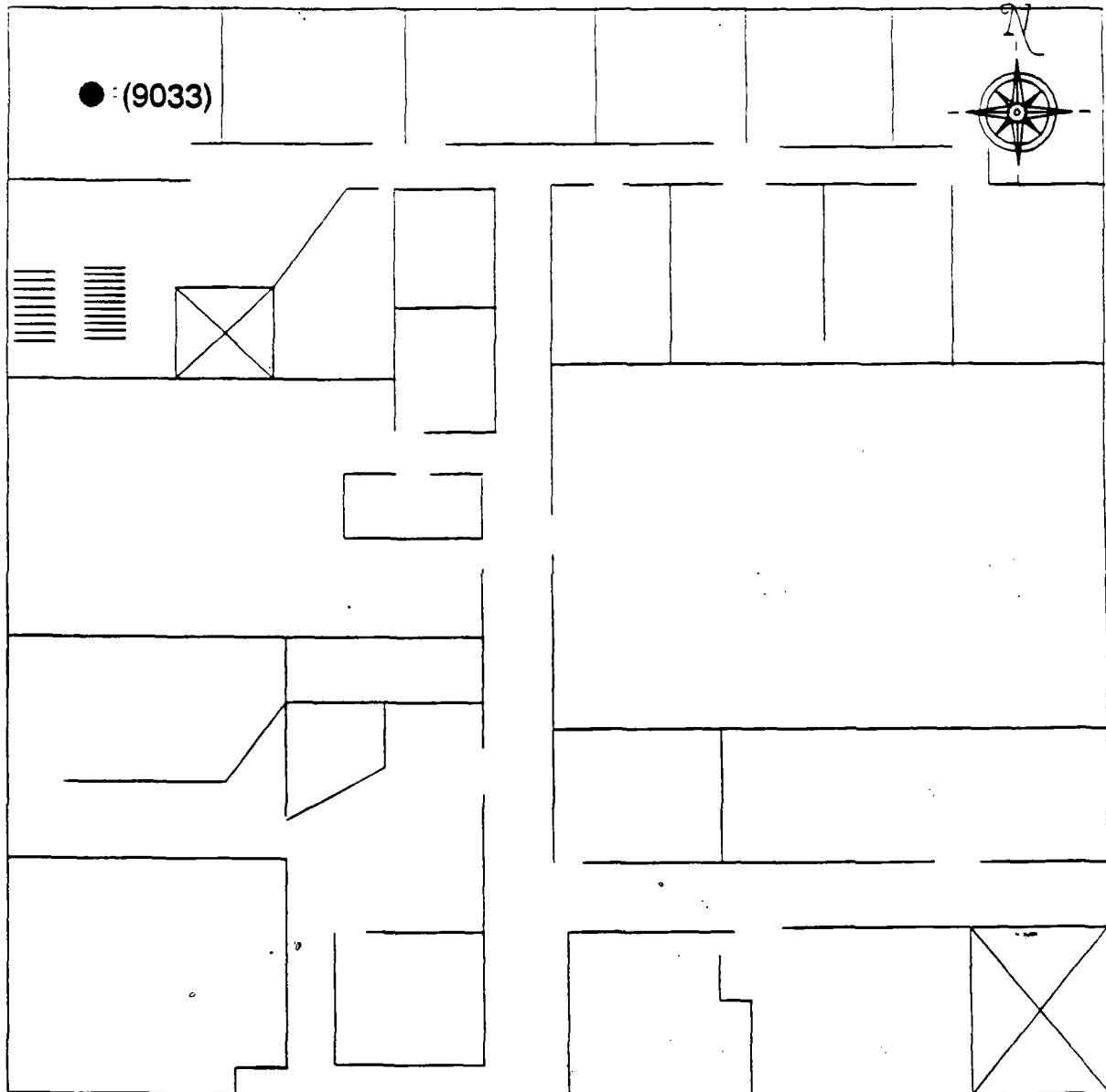
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Region V

TITLE	161 E. Grand Ave. Basement (Optumus)	FIGURE #	Figure 6
SITE	Lindsay Light Company	TOP	T05-9305-014
CITY	Chicago	STATE	IL
SOURCE	Instrument: Ludlum Model 19	SCALE	Not to Scale
		DATE	July 16, 1993
		REVISED	

ATTACHMENT IV  
MAPS SHOWING TLD LOCATIONS

# Readings: Micro-R/hr



## LEGEND TLD RESULTS

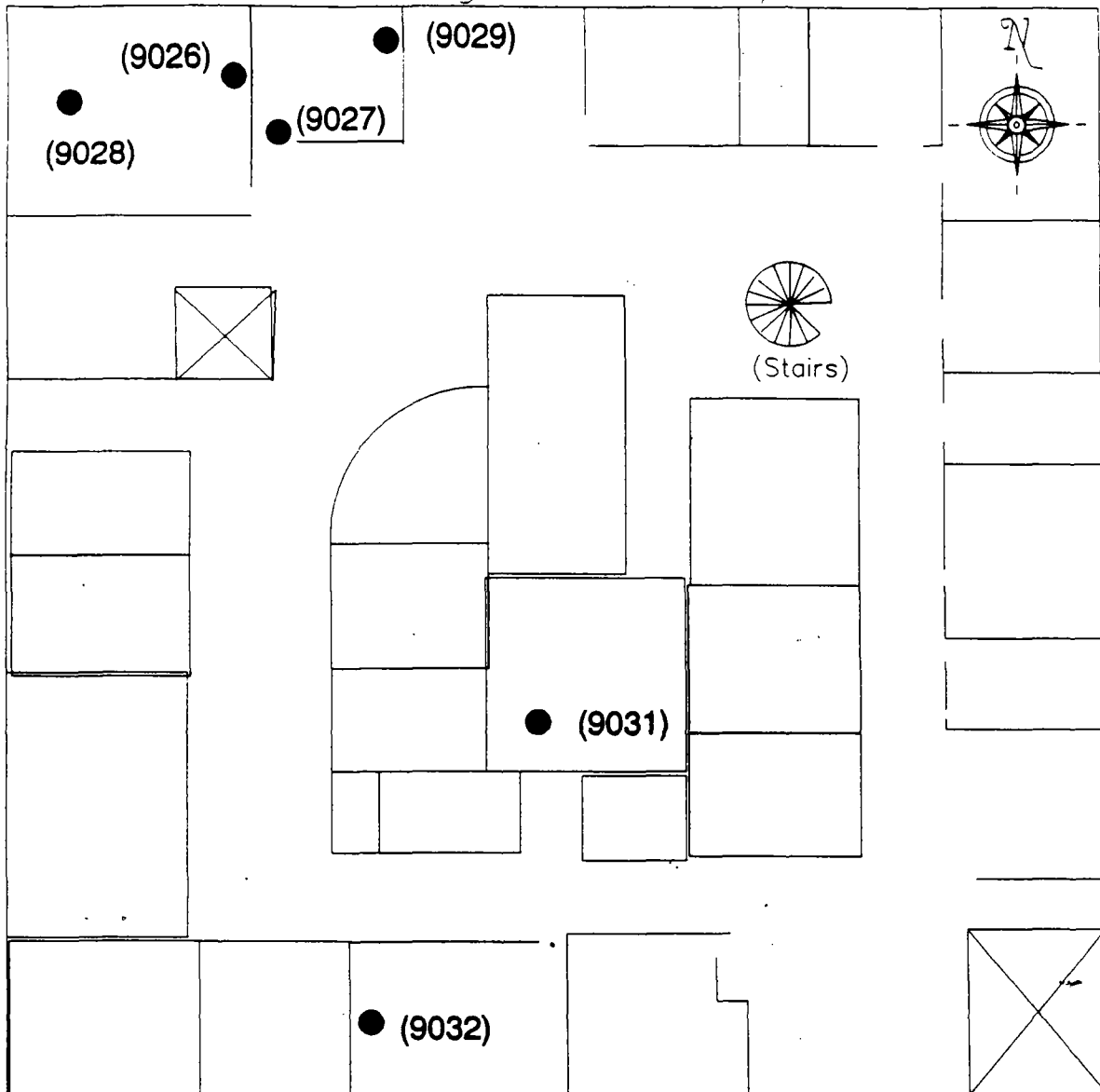
(9033) = 0.031 uR/hr



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Technical Assistance Team  
Region V

TITLE	161 E. Grand 3rd Floor (Optumus)	FIGURE #	Figure 3
SITE	Lindsay Light Company	TRNO	T05-9305-014
CITY	Chicago	STATE	IL
DATE	July 16, 1993	SCALE	Not to Scale
REVISION			

Reading: micro-R/hr



● TLD BADGES (Badge #)

**LEGEND  
TLD RESULTS**

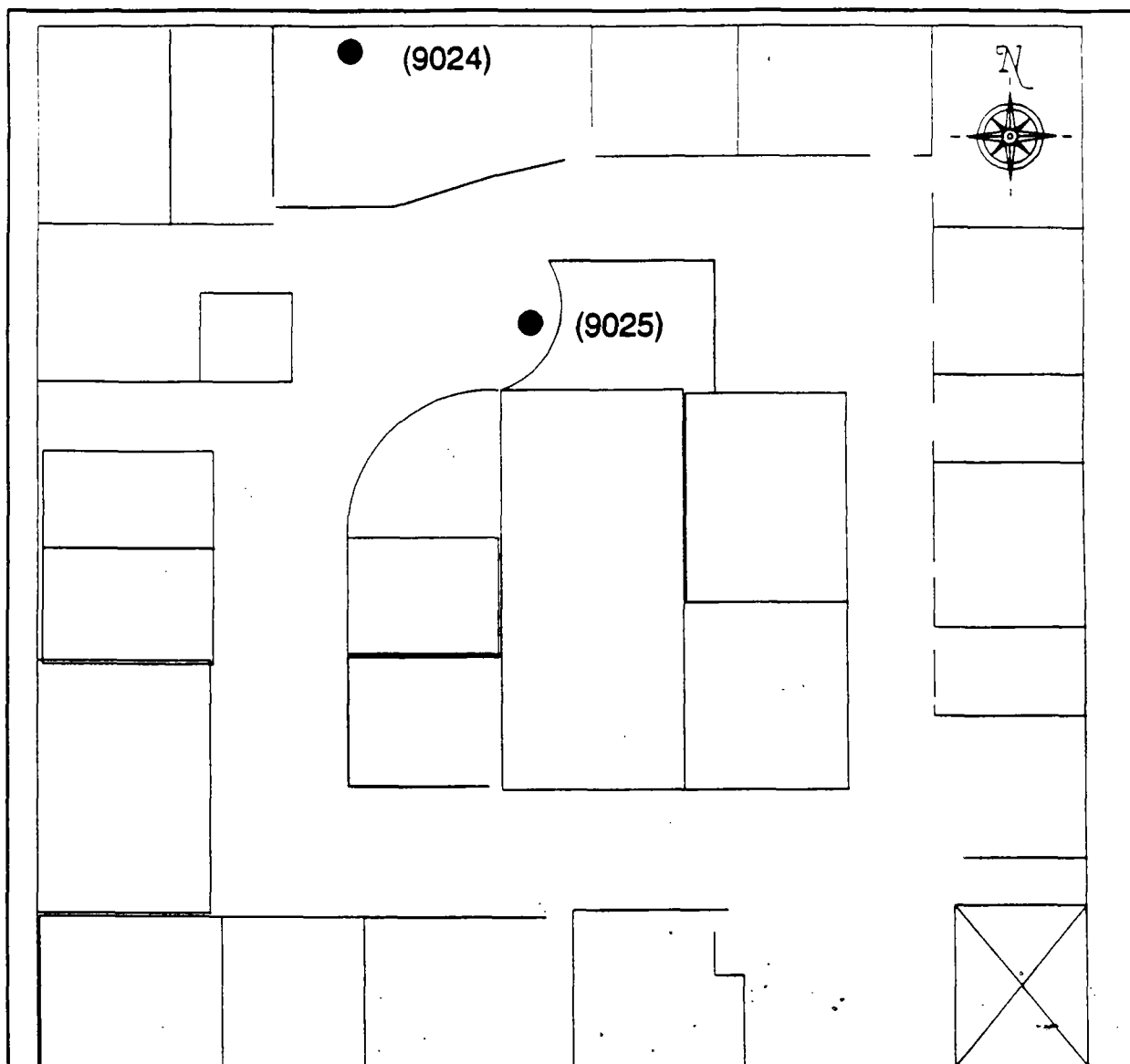
(9026) = 0.257 uR/hr  
 (9027) = 0.628 uR/hr  
 (9028) = 0.052 uR/hr  
 (9029) = 0.039 uR/hr  
 (9031) = 0.005 uR/hr  
 (9032) = 0.006 uR/hr



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Region V**

TITLE	161 E. Grand Ave. 2nd Floor (Optumus)	FIGURE #	Figure 2
SITE	Lindsay Light Company	TDD #	T05-9305-014
CITY	Chicago	STATE	IL
SOURCE		SCALE	Not to Scale
		DATE	July 16, 1993
		REVISED	



● TLD Badge (Badge #)

## LEGEND

### TLD Results

Readings: MicroR/Hr

(9024) = 0.034 uR/hr

(9025) = 0.037 uR/hr



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**Technical Assistance Team**

**Region V**

111 W. Jackson Blvd., Chicago, Illinois 60604

TITLE

161 E. Grand Ave. 1st Floor Readings Optumus

FIGURE #

Figure 5

SITE

Lindsay Light Co.

SCALE

T05-9305-014

CITY

Chicago

STATE

IL

PAN

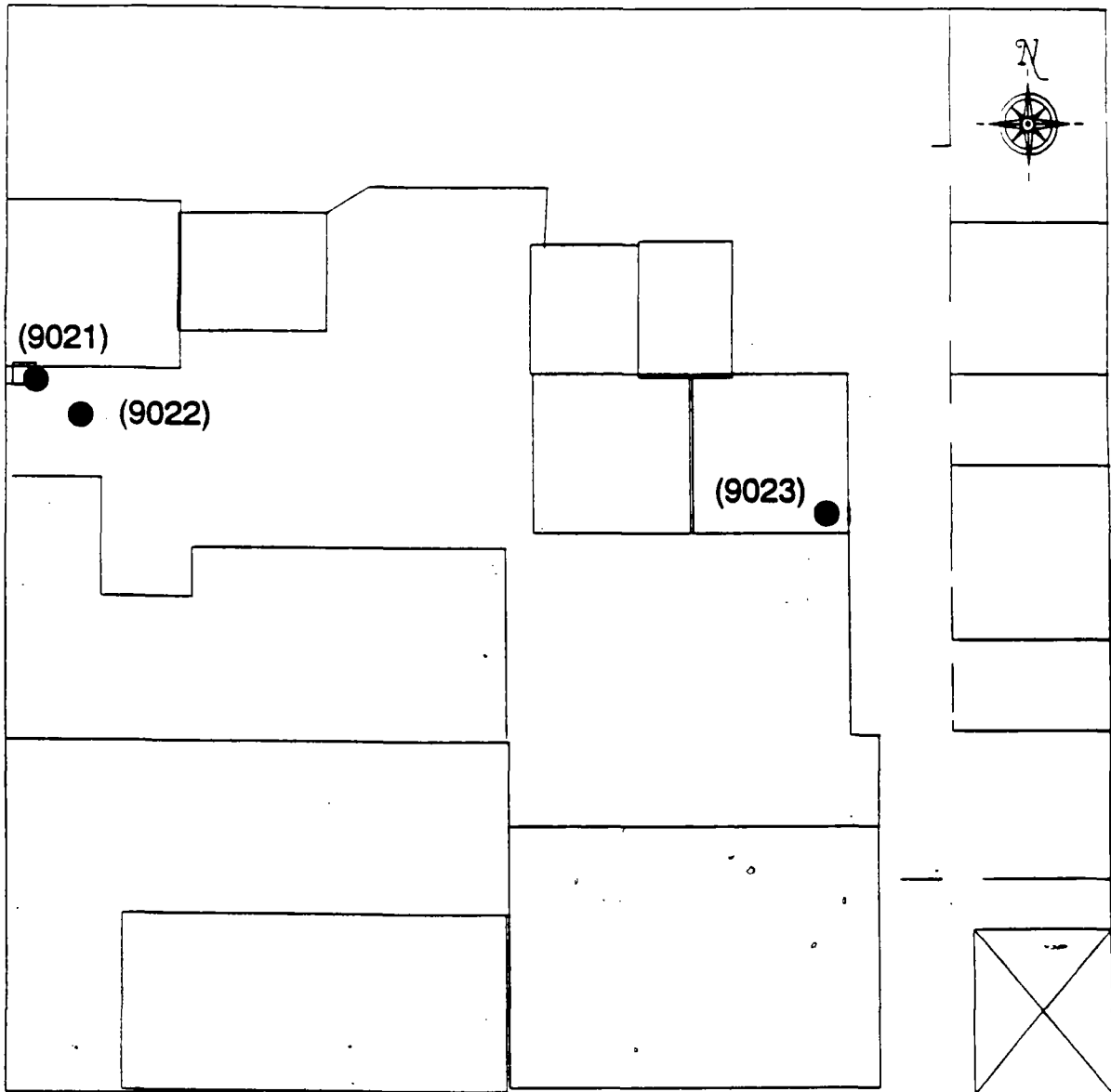
Not to Scale

SOURCE

DATE

REVISED

# Readings: Micro-R/hr



● TLD Badge ( Badge #)

## LEGEND TLD EXPOSURE RESULTS

(9021) = 4.289 uR/hr  
(9022) = 0.275 uR/hr  
(9023) = 0.028 uR/hr



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**Region V**

TITLE 161 E. Grand Ave. Basement (Optumus) Figure 6		FIGURE #
SITE Lindsay Light Company		TRNO T05-9305-014
CITY Chicago	STATE IL	SCALE Not to Scale
SOURCE		DATE July 16, 1993
		REVISED